REMARKS/ARGUMENTS

Claims 1-4 and 14-19 have been rejected as anticipated by or, in the alternative, as obvious over Kanno et al. (U.S. Patent No. 5,918,817). Claims 1-4 and 14-19 have been rejected as being anticipated by Izumi et al. (U.S. Publication No. 2003/0170988).

As discussed further below, claims 2, 14-17 and 19 are being canceled.

In view of the present amendments and remarks, reconsideration is requested.

Claim 1 is being amended to include the limitations of claim 2, now canceled. Thus claim 1 now recites a <u>median</u> droplet diameter range of 10μm to 16μm.

Against claim 1, the Examiner has cited Kanno et al. (column 14, lines 17-33), in which the sizes of the droplets are recited as being about 20μm, about 10μm, about 5μm and about 2μm.

However, Kanno does not suggest the claimed range of median diameter.

The droplets are generated by two-fluid jet nozzles. A person skilled in the art knows that the droplets generated by two-fluid jet nozzles cannot be "one size droplets" but must have a broad diameter distribution, for example, as shown in Fig. 11 of the present application. Therefore, the diameters of "about 20μm, about 10μm, about 5μm and about 2μm" taught by Kanno et al. must be average diameters. Thus Kanno teaches average diameters that are outside the range recited in claim 1.

In addition, the two-fluid jet nozzles of Kanno et al. is of a so-called internal mixing type (see Figs. 11-14, 16A and 18 of Kanno et al.) in which droplets having large diameters are easily generated since the droplets are confined in a limited space inside the nozzle (tube) so that the droplets are frequently recombined. Such droplets having large diameters necessarily affect a value of a volume median diameter.

Therefore, the 10μm-16μm <u>median</u> diameter range of amended claim 1 is not taught or suggested by either Kanno et al. or Izumi et al., even if Izumi et al. suggests a <u>diameter</u> range of 5μm to 20μm.

Furthermore, Izumi et al. also employs a bifluid nozzle. As discussed above, the descriptions referred by the Examiner do not teach that no droplet has a diameter greater than 20μm, and do not define a median diameter range as now claimed.

As described in the specification of the present application, paragraph [0160], a particle removal rate of not lower than 95% and a reduced number of defects can be achieved in EXAMPLE 2, in which the requirements of the amended claim 1 are satisfied.

In view of the foregoing, allowance of claims 1, 3, 4 and 18 is requested.

New independent claim 20 includes the limitations of original claim 1, and the further limitation that the treatment liquid is deionized water and that the gas to be mixed with the treatment liquid is nitrogen gas (see page 7, line 25 - page 8, line 1; and page 23, line 22 - page 24, line 12 in the specification).

Further, new dependent claims 21-24 correspond to the previously submitted claims 2 to 4 and claim 18, respectively. The new claims 21-24 depend directly or indirectly from the new claim 20.

As for the new claim 20, the diameters of the droplets to be generated depend on the viscosity of the treatment liquid. Izumi et al. used a solution mixture of an aqueous ammonia solution and ozone water as a treatment liquid (see paragraph [0130] of Izumi et al.). Such solution mixture has different viscosity from that of deionized water.

Therefore, even if Izumi et al. teach or suggest a volume median diameter range of $5\mu m$ to $40\mu m$ with regard to such a solution mixture, they do not teach or suggest the generation of droplets of deionized water with the volume median diameter of $5\mu m$ to $40\mu m$ as now claimed in claim 20. Therefore, allowance of claims 20-24 is requested as well.

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